

## Appendix

1. (Original) A method for producing a secure subspace for a transaction, said method comprising:

from an operating system task, attaching a subtask that will restrict application addressing; and

wherein said attaching includes defining a subspace address environment as home space within a dispatchable unit access list (DU-AL) associated with said subtask.

2. (Original) The method of claim 1, wherein said subtask comprises a first subtask, said subspace comprises a first subspace and a first application runs under said first subtask, and wherein said method further comprises repeating said attaching to define a second subtask having a second subspace address environment as home space within a DU-AL associated with said second subtask, wherein a second application runs under said second subtask.

3. (Original) The method of claim 2, wherein said first subspace is isolated from said second application and said second subspace is isolated from said first application notwithstanding execution of said first application or said second application in address register addressing mode.

4. (Original) The method of claim 2, wherein said operating system task and said first subtask share said first subspace, and said operating system task and said second subtask share said second subspace.

5. (Original) The method of claim 2, further comprising repeating said subtask attaching for n additional subtasks, each subtask of said n additional subtasks having a different subspace address environment as home space within its associated DU-AL, wherein each subspace of said first, second and n additional subtasks is isolated from an application running under any other subtask of said first, second and n additional subtasks.

6. (Original) The method of claim 5, wherein each subspace address environment of said first, second and n additional subtasks comprises a different subspace of an address environment of said operating system task.

7. (Original) The method of claim 1, further comprising prior to said attaching:

creating said subspace;

adding said subspace to a DU-AL associated with said operating system task;

assigning a range of storage that an application running in the subspace can access; and

performing a branch in subspace group (BSG) to make the subspace the active addressing environment.

8. (Original) The method of claim 7, wherein said performing the BSG comprises employing a BSG instruction to specify an access list entry (ALET) in the DU-AL associated with said operating system task.

9. (Original) The method of claim 1, wherein said subtask comprises a first subtask and a first application runs under said first subtask and wherein said method further comprises creating a second subtask from said first subtask, said creating comprising from said first subtask, attaching said second subtask thereto, said second subtask also having said subspace address environment as home space within a DU-AL associated therewith, wherein said subspace is shared by said operating system task, said first subtask and said second subtask.

10. (Original) The method of claim 9, wherein said subspace comprises a first subspace, and said method further comprises repeating said attaching from said operating system task to define a third subtask having a second subspace address environment as home space within a DU-AL associated with said third subtask, wherein a second application runs under said third subtask, and wherein said first application and said second application are

unable to access each other's address environment notwithstanding execution thereof in address register addressing mode.

11. (Original) At least one program storage device readable by a machine, tangibly embodying at least one program of instructions executable by the machine to perform a method for producing a secure subspace for a transaction, said method comprising:

from an operating system task, attaching a subtask that will restrict application addressing; and

wherein said attaching includes defining a subspace address environment as home space within a dispatchable unit access list (DU-AL) associated with said subtask.

12. (Original) The at least one program storage device of claim 11, wherein said subtask comprises a first subtask, said subspace comprises a first subspace and a first application runs under said first subtask, and wherein said method further comprises repeating said attaching to define a second subtask having a second subspace address environment as home space within a DU-AL associated with said second subtask, wherein a second application runs under said second subtask.

13. (Original) The at least one program storage device of claim 12, wherein said first subspace is isolated from said second application and said second subspace is isolated from said first application notwithstanding execution of said first application or said second application in address register addressing mode.

14. (Original) The at least one program storage device of claim 12, wherein said operating system task and said first subtask share said first subspace, and said operating system task and said second subtask share said second subspace.

15. (Original) The at least one program storage device of claim 12, further comprising repeating said subtask attaching for n additional subtasks, each subtask of said n additional subtasks having a different subspace address environment as home space within its associated DU-AL, wherein each subspace of said first, second and n additional subtasks is

isolated from an application running under any other subtask of said first, second and n additional subtasks.

16. (Original) The at least one program storage device of claim 15, wherein each subspace address environment of said first, second and n additional subtasks comprises a different subspace of an address environment of said operating system task.

17. (Original) The at least one program storage device of claim 11, further comprising prior to said attaching:

creating said subspace;

adding said subspace to a DU-AL associated with said operating system task;

assigning a range of storage that an application running in the subspace can access; and

performing a branch in subspace group (BSG) to make the subspace the active addressing environment.

18. (Original) The at least one program storage device of claim 17, wherein said performing the BSG comprises employing a BSG instruction to specify an access list entry (ALET) in the DU-AL associated with said operating system task.

19. (Original) The at least one program storage device of claim 11, wherein said subtask comprises a first subtask and a first application runs under said first subtask and wherein said method further comprises creating a second subtask from said first subtask, said creating comprising from said first subtask, attaching said second subtask thereto, said second subtask also having said subspace address environment as home space within a DU-AL associated therewith, wherein said subspace is shared by said operating system task, said first subtask and said second subtask.

20. (Original) The at least one program storage device of claim 19, wherein said subspace comprises a first subspace, and said method further comprises repeating said attaching from said operating system task to define a third subtask having a second subspace

address environment as home space within a DU-AL associated with said third subtask, wherein a second application runs under said third subtask, and wherein said first application and said second application are unable to access each other's address environment notwithstanding execution thereof in address register addressing mode.

21. (Original) A system for producing a secure subspace for a transaction, said system comprising:

means for attaching, from an operating system task, a subtask that will restrict application addressing; and

wherein said means for attaching includes means for defining a subspace address environment as home space within a dispatchable unit access list (DU-AL) associated with said subtask.

22. (Original) The system of claim 21, wherein said subtask comprises a first subtask, said subspace comprises a first subspace and a first application runs under said first subtask, and wherein said system further comprises means for repeating said attaching to define a second subtask having a second subspace address environment as home space within a DU-AL associated with said second subtask, wherein a second application runs under said second subtask.

23. (Original) The system of claim 22, wherein said first subspace is isolated from said second application and said second subspace is isolated from said first application notwithstanding execution of said first application or said second application in address register addressing mode.

24. (Original) The system of claim 22, wherein said operating system task and said first subtask share said first subspace, and said operating system task and said second subtask share said second subspace.

25. (Original) The system of claim 22, further comprising means for repeating said subtask attaching for n additional subtasks, each subtask of said n additional subtasks having a different subspace address environment as home space within its associated DU-AL,

wherein each subspace of said first, second and n additional subtasks is isolated from an application running under any other subtask of said first, second and n additional subtasks.

26. (Original) The system of claim 25, wherein each subspace address environment of said first, second and n additional subtasks comprises a different subspace of an address environment of said operating system task.

27. (Original) The system of claim 21, further comprising prior to said means for attaching:

means for creating said subspace;

means for adding said subspace to a DU-AL associated with said operating system task;

means for assigning a range of storage that an application running in the subspace can access; and

means for performing a branch in subspace group (BSG) to make the subspace the active addressing environment.

28. (Original) The system of claim 27, wherein said means for performing the BSG comprises means for employing a BSG instruction to specify an access list entry (ALET) in the DU-AL associated with said operating system task.

29. (Original) The system of claim 21, wherein said subtask comprises a first subtask and a first application runs under said first subtask and wherein said system further comprises means for creating a second subtask from said first subtask, said means for creating comprising means for attaching said second subtask to said first subtask, said second subtask also having said subspace address environment as home space within a DU-AL associated therewith, wherein said subspace is shared by said operating system task, said first subtask and said second subtask.

30. (Original) The system of claim 29, wherein said subspace comprises a first subspace, and said system further comprises means for repeating said means for attaching

from said operating system task to define a third subtask having a second subspace address environment as home space within a DU-AL associated with said third subtask, wherein a second application runs under said third subtask, and wherein said first application and said second application are unable to access each other's address environment notwithstanding execution thereof in address register addressing mode.

31. (Original) A system for producing a secure subspace for a transaction, said system comprising:

an operating system transaction manager adapted to attach a subtask to an operating system task, wherein said subtask restricts application addressing; and

wherein said attach includes said operating system transaction manager being adapted to define a subspace address environment as home space within a dispatchable unit access list (DU-AL) associated with said subtask.